

(FILE 'HOME' ENTERED AT 16:43:26 ON 02 JAN 2003)

FILE 'MEDLINE, EMBASE, CANCERLIT, BIOTECHDS, CAPLUS' ENTERED AT 16:44:05
ON 02 JAN 2003

L1 316995 S ACRYLIC OR METHACRYLIC ACID OR MALEIC ANHYDRIDE OR EMA
L2 255 S EQUINE INFLUENZA VIRUS
L3 2 S L1 AND L2
L4 2 DUP REM L3 (0 DUPLICATES REMOVED)
L5 361873 S VACCINE OR ADJUVANT
L6 473 S L5 AND L1
L7 2184896 S PLASMID OR DNA
L8 17 S L6 AND L7
L9 15 DUP REM L8 (2 DUPLICATES REMOVED)
L10 2 S L1 AND DNA VACCINE
L11 5163 S DNA VACCINE
L12 5 S L11 AND (POLYMER AND COPOLYMER)
L13 4 DUP REM L12 (1 DUPLICATE REMOVED)
L14 158945 S ADJUVANT
L15 376 S L14 AND L1
L16 12 S L15 AND L7
L17 11 DUP REM L16 (1 DUPLICATE REMOVED)
L18 648 S L11 AND L14
L19 1278238 S POLYMER OR MICROPARTICLE OR COPOLYMER OR POLYMERIC
L20 28 S L19 AND L18
L21 20 DUP REM L20 (8 DUPLICATES REMOVED)
L22 172 S L1 AND VECTOR
L23 54 S L22 AND (DNA OR PLASMID)
L24 42 DUP REM L23 (12 DUPLICATES REMOVED)

L17 ANSWER 6 OF 11 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
AN 2000-02300 BIOTECHDS
TI Live recombinant vaccine comprising virus vector and polymeric
adjuvant, particularly directed against animal herpes and
influenza viruses;
recombinant vaccine production with a virus vector encoding a pathogen
gene and an **adjuvant** for virus infection vaccination
AU Audonnet J C; Minke J M
PA Merial
LO Lyons, France.
PI WO 9944633 10 Sep 1999
AI WO 1999-FR453 1 Mar 1999
PRAI FR 1998-2800 3 Mar 1998
DT Patent
LA French
OS WPI: 2000-022918 [02]
AB A live recombinant vaccine which consists of a virus vector (A)
containing a heterologous **DNA** sequence (I) (particularly
encoding a gene from a pathogen) and at least one **adjuvant** (II),
i.e. a methylacrylic acid polymer or a copolymer of **maleic**
anhydride and alkenyl derivatives, is new. Also claimed is a
vaccination kit which consists of lyophilized (A) and a solution of (II),
in separate containers. These new vaccines may be particularly useful
for protecting against animal herpes and influenza viruses, but they may
also be useful for protecting against cat leukemia, tetanus toxin and dog
distemper. The vaccines may be administered either parentally via a
s.b., i.m. or i.d. injection, or mucosally. In an example, virus RNA
from horse influenza virus strain Prague 56 was cloned into a
plasmid to form vector **plasmid** pJT008. pJT008 was then
linearized and used for in vitro recombination with a commercial
canary-pox virus to form vCP1502 recombinant virus. (40pp)

L17 ANSWER 6 OF 11 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
AN 2000-02300 BIOTECHDS
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recombinant vaccine production with a virus vector encoding a pathogen
gene and an **adjuvant** for virus infection vaccination
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plasmid to form vector **plasmid** pJT008. pJT008 was then
linearized and used for in vitro recombination with a commercial
canary-pox virus to form vCP1502 recombinant virus. (40pp)

L17 ANSWER 5 OF 11 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
AN 2000-00707 BIOTECHDS
TI Vaccine containing naked **DNA** and **acrylic** acid polymer
or maleric anhydride copolymer, for protection against virus or bacterial
diseases in animals;
vector **plasmid**-mediated gene transfer and expression in
horse, pig, cattle, bird, dog or cat as a nucleic acid vaccine for
bacterium and virus infection therapy
AU Audonnet J C F; Minke J M
PA Merial
LO France.
PI FR 2776928 8 Oct 1999
AI FR 1998-4409 3 Apr 1998
PRAI FR 1998-4409 3 Apr 1998
DT Patent
LA French
OS WPI: 1999-593389 [51]
AB A nucleic acid vaccine which consists of naked **DNA** that
includes and expresses in vivo, a sequence (I) which encodes an antigenic
protein and at least one **adjuvant** (III) that is an
acrylic or **methacrylic** acid polymer or a
copolymer of maleric anhydride with an alkenyl derivatives, is new. Also
claimed is a method for using (III) as an **adjuvant** in a nucleic
acid vaccine containing, and expressing in vivo a heterologous sequence.
These new nucleic acid vaccines may be useful for protecting animals
(pigs, horses, dogs, cattle, cats and birds) against a wide variety of
virus and bacterial infections. The vaccines have the advantage of being
simple and easy to prepare (simply by mixing components) and they do not
involve any strong interactions between **DNA** and other
components that are likely to cause complex formation. In an example,
reverse-transcription polymerase chain reaction was used to construct 3
plasmid vectors which were used as the nucleic acid vaccines.
(33pp)

L17 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS

AN 1999:659270 CAPLUS

DN 131:298650

TI Polymer adjuvants for use with vector vaccines

IN Audonnet, Jean-christophe Francis; Minke, Jules Maarten

PA Merial, Fr.

SO PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9951269	A1	19991014	WO 1999-FR666	19990322
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2776928	A1	19991008	FR 1998-4409	19980403
	FR 2776928	B1	20000623		
	CA 2327389	AA	19991014	CA 1999-2327389	19990322
	AU 9928448	A1	19991025	AU 1999-28448	19990322
	AU 744964	B2	20020307		
	BR 9909342	A	20001212	BR 1999-9342	19990322
	EP 1066055	A1	20010110	EP 1999-909069	19990322
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002510651	T2	20020409	JP 2000-542039	19990322
PRAI	FR 1998-4409	A	19980403		
	WO 1999-FR666	W	19990322		

AB Polymer adjuvants that increase the efficacy of vector vaccines carrying an expression cassette for an antigen gene of a pathogen are described. The polymers are **acrylic** or methacrylic polymers and the **maleic anhydride** copolymers and alkenyl deriv. The **adjuvant** compd. is preferably a carbomer or an **EMA**.**RTM.** Construction of expression vectors for a no. viral antigen genes were constructed using the com. expression vector pVR1012 is described. Inoculation of horses, swine, cattle, and dogs with these vectors with Carbopol 974P as an **adjuvant** is demonstrated. Use of the **adjuvant** led to the appearance of antibody to the antigens.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 18 OF 20 MEDLINE DUPLICATE 3
AN 1998382497 MEDLINE
DN 98382497 PubMed ID: 9714699
TI Intranasal administration of HIV-DNA vaccine
formulated with a **polymer**, carboxymethylcellulose, augments
mucosal antibody production and cell-mediated immune response.
AU Hamajima K; Sasaki S; Fukushima J; Kaneko T; Xin K Q; Kudoh I; Okuda K
CS Department of Bacteriology, Yokohama City University School of Medicine,
Yokohama, 236, Japan.
SO CLINICAL IMMUNOLOGY AND IMMUNOPATHOLOGY, (1998 Aug) 88 (2) 205-10.
Journal code: 0356637. ISSN: 0090-1229.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 199809
ED Entered STN: 19981008
Last Updated on STN: 19981008
Entered Medline: 19980929
AB We previously reported that intramuscular (i.m.) immunization of
DNA vaccine encoding human immunodeficiency virus type 1
(HIV-1) IIIB env and rev genes alone or in combination with appropriate
adjuvant induces substantial and enhanced immune response against
HIV-1. In the present study, we examined whether a **polymer**,
low-viscosity carboxymethylcellulose sodium salt (CMCS-L), has an
adjuvant effect on immune response induced by DNA vaccination.
BALB/c mice were immunized with HIV-DNA vaccine
formulated with CMCS-L via the intranasal (i.n.) and i.m. routes. The
combination with the **polymer** elicited higher levels of
antigen-specific serum IgG and fecal IgA antibodies than DNA
vaccine alone. For cell-mediated immunity, HIV-specific
delayed-type hypersensitivity response and cytotoxic T lymphocyte activity
were measured by the footpad-swelling test and the 51Cr-release assay,
respectively. Both were enhanced by the combination with CMCS-L via i.n.
and i.m. inoculation. Cytokine analysis in culture media of bulk
splenocytes harvested from immunized animals showed higher levels of IL-4
production in i.n. -immunized mice compared with i.m.-immunized mice.
Nevertheless, the increased IFN-gamma production resulting from the
combination with CMCS-L was observed only in i.n.-immunized mice. These
data indicate that i.n. immunization of HIV-DNA vaccine
formulated with CMCS-L enhances HIV-specific mucosal antibody (Ab) and
systemic Ab and cell-mediated immune response.
Copyright 1998 Academic Press.

L21 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS

AN 2002:51240 CAPLUS

DN 136:107525

TI Microspheres and adjuvants for **DNA vaccine** delivery

IN Johnson, Mark E.; Mossman, Sally; Cecil, Tricia; Evans, Lawrence

PA Corixa Corporation, USA

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002003961	A1	20020117	WO 2001-US21780	20010709
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001071976	A5	20020121	AU 2001-71976	20010709
	US 2002032165	A1	20020314	US 2001-901829	20010709

PRAI US 2000-216604P P 20000707
WO 2001-US21780 W 20010709

AB A nucleic acid delivery system that offers, in one system, a combination of high encapsulation efficiency, rapid release kinetics and preservation of DNA in a supercoiled form is provided. The nucleic delivery system comprises nucleic acid mols., such as a DNA, encapsulated in biodegradable microspheres, and is particularly suited for delivery of DNA vaccines. The invention further provides an **adjuvant** for modulating the immunostimulatory efficacy of microspheres encapsulating nucleic acid mols. comprising an aminoalkyl glucosaminide 4-phosphate (AGP). Thus, a quick release, high efficiency, porous, 1-10 .mu.m DNA microsphere formulation was developed by using PLG **copolymer** and tested. Cytotoxic T-lymphocyte (CTL) responses to 2 antigens, Her-2/neu and TbH9, were generated using these DNA microspheres. I.m. and i.p. routes were the best for CTL elicitation. Several AGPs provided substantial CTL **adjuvant** activity to the DNA microspheres. Sodium

fluoride. (16 ref)

L24 ANSWER 22 OF 42 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
AN 1998-07238 BIOTECHDS
TI Production of nucleic acid conjugates;
 plasmid DNA and RNA conjugate preparation for use
 in gene transfer and sense, antisense gene expression control
AU Bayer E; Fritz H; Maier M
PA SKW-Trostberg
LO Trostberg, Germany.
PI DE 19746362 30 Apr 1998
AI DE 1997-1046362 21 Oct 1997
PRAI DE 1997-1046362 21 Oct 1997
DT Patent
LA German
OS WPI: 1998-252414 [23]
AB A new process for the production of conjugates of nucleic acids with
polymer nanoparticles involves subjecting sparingly water-soluble vinylic
monomers to emulsion polymerization in an aq. medium in the presence of a
cationic radical initiator and in the absence of an emulsifier,
preferably purifying the suspension by diafiltration or centrifugation,
and reacting the resulting polymer suspension with a nucleic acid at
10-30 deg and pH less than 11. The conjugates are useful for gene
transfer or for sense or antisense control of gene expression. Conjugates
with high nucleic acid loadings and adequate resistance to enzyme
degradation can be produced. The monomers preferably have a water
solubility below 20 g/l and are selected from styrene, **acrylic**
acid derivatives and **methacrylic acid** derivatives.
The polymer suspension has a particle size of 10-1,000 nm. The nucleic
acid is optionally chemically modified **DNA** or RNA with a length
of 7-40 nucleotides, and is preferably a **plasmid**. (5pp)

L24 ANSWER 11 OF 42 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.
AN 2001213999 EMBASE
TI Copolymers of amine methacrylate with poly(ethylene glycol) as vectors for gene therapy.
AU Rungsardthong U.; Deshpande M.; Bailey L.; Vamvakaki M.; Armes S.P.; Garnett M.C.; Stolnik S.
CS S. Stolnik, School of Pharmaceutical Sciences, University of Nottingham, University Park, Nottingham NG7 2RD, United Kingdom.
snjezana.stolnik@nottingham.ac.uk
SO Journal of Controlled Release, (12 Jul 2001) 73/2-3 (359-380).
Refs: 44
ISSN: 0168-3659 CODEN: JCREEC
PUI S 0168-3659(01)00295-4
CY Netherlands
DT Journal; Article
FS 022 Human Genetics
037 Drug Literature Index
LA English
SL English
AB A series of structurally related copolymers of tertiary amine methacrylate with poly(ethylene glycol) (PEG) were investigated for their potential to serve as vectors for gene therapy. The effects of copolymer structure on the complexation and transfection ability were assessed. The ability of the PEG-based copolymers and DMAEMA homopolymer to bind and condense **DNA** was confirmed by gel electrophoresis, ethidium bromide displacement and transmission electron microscopy. The presence of PEG in the copolymers had a beneficial effect on their ability to bind to **DNA**. Colloidally stable complexes were obtained for all the PEG-copolymer systems as shown by uniformly discrete spherical images from transmission electron microscopy and approximate diameters of 80-100 nm by dynamic light scattering studies. DMAEMA homopolymer, however, produced agglomerated particles, confirming the important role played by the PEG chains in producing compact stable **DNA** complexes. Assessment of the effect of ionic strength of the buffer on the complexation and dissociation of the complexes indicated the importance of both electrostatic and non-electrostatic interactions in the polymer-**DNA** complexation. In vitro transfection experiments showed that DMAEMA homopolymer gave the highest level of transfection comparable to a control poly-L-lysine (PLL) system. The PEG-based copolymers gave reduced levels of transfection, most likely due to the steric stabilization effect of a PEG corona. .COPYRGT. 2001 Elsevier Science B.V.